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# CANADIAN PATENT

## ILLUMINATED SAFETY CANE

Heinrich Zimmer, Oakville, Ontario, Canada

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No. OF CLAIMS 5

DISTRIBUTED BY THE PATENT OFFICE,  
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This invention relates generally to safety accessories for pedestrians and more particularly to a form of illuminated walking stick having wide application to the general public but more specific application to the physically handicapped, the elderly, the blind or those with impaired vision.

Provision of walking sticks designed to identify the user's physical disability, blindness or impaired vision to other pedestrians has heretofore taken the form of a conventional stick or case painted white. While walking sticks so treated are quite adequate for use during hours of daylight, their usefulness becomes somewhat limited at dusk and during darkness or when fog conditions prevail.

Accordingly, it is a prime object of the instant invention to provide an improved walking stick for use by the blind and handicapped both during daytime and nighttime, the walking stick having means incorporated whereby it may be selectively illuminated by the user.

Another important object of my invention resides in the provision of such a walking stick referred to herein-after as an illuminated stick which is constructed from a translucent plastic material, the body of the stick being hollow and adapted to retain therein illuminating means.

Yet a further object of my invention provides an illuminated stick having reflector means therein, such means producing high-lit areas at a predetermined location upon the stick.

Still another object of the present invention proposes an illuminated stick having selective switching means incorporated within the handle portion, such switching means



having easily identified positions and being easily operated by the thumb or finger of the user.

Other objects of this invention provide an illuminated stick which is strong, durable, and relatively inexpensive to manufacture.

These and further pertinent objects and features of this invention will become more readily apparent from the following detailed description of parts and when taken in conjunction with the accompanying drawings in which: -

10 Fig. 1 is a broken, side elevation of an illuminated stick embodying the instant invention.

Fig. 2 is a broken sectional side elevation of the invention as illustrated in Fig. 1 taken on the line 2 - 2.

Fig. 3 is a detailed sectional view of the reflector assembly housed in the end of the stick body.

20 Referring now to Figs. 1 and 2 an illuminated stick indicated generally by the arrow 10 includes an elongated tubular body 11 having an upper end 12 and a lower end 13. Tubular body 11 is formed from a suitable plastic material preferably white in colour and having the characteristics of transluscence. A plurality of longitudinal ribs 11a are formed throughout the length of body 11 thereby imparting strength and rigidity thereto.

A circular, internal flange 14, integral with body 11, is located within upper end 12, its inner peripheral edge having a screw thread 14a formed therein and ends 12 and 13 of body 11 each having externally threaded portions 12a and 13a respectively.

A ferrul 15, having an internally threaded sec-  
tion 15a of increas d diameter is adapted to b threadably  
attached to nd 12 of body 11, b ing firmly retained there-  
on by means of a lock washer 16 located between the end of  
threaded portion 12a and shoulders 15b of ferrule 15.

Handle means 17 integral with ferrule 15 project  
substantially perpendicularly outwardly therefrom, both  
handle 17 and ferrule 15 being formed from the same mater-  
ial as body 11.

10 Illuminating means 18 include a cylindrical bat-  
tery housing 18a having a bulb holder 18b at one end there-  
of, a bulb 18c threadably retained in holder 18b and switch  
means 19 at the opposite end.

It will be readily apparent that the dry cell pock-  
et torch type batteries may be used with illuminating means  
18, housing 18a being adapted to hold a plurality of such  
batteries in series contact and allowing for the easy re-  
placement of spent batteries when necessary.

20 Switch means 19 should be such as to operate on  
the push contact principle, having a positive "on" position  
easily distinguishable to a blind person and identifiable by  
touch.

An externally threaded portion 18d formed upon  
housing 18 is adapted to be threadably received within flange  
14 of body 11, an outwardly projecting circular flange 18e  
located circumferentially on housing 18a immediately above  
threaded portion 18d preventing housing 18a from being screw-  
ed beyond the limits of threaded portion 18d.

Thus, in assembly, illuminating means 18 is

ins rt d longitudinally within body 11 and threadably r tain-d within flange 14 th reof.

Referring now to Figs. 1, 2 and 3 a reflector unit 20 housed in end 13 of body 11 includes a shallow, conical reflector 21 having its upper surface 21a hightly polished and located with its apex 21b uppermost and centrally within end 13, its peripheral edge 21c conforming to the outside diameter of body 11 and being seated thereon within a co-operable counter sunk section 11b. A grommit 22, threadably retained on end 13 of body 11 serves as a strike point for illuminated stick 10 and also secures reflector 21 in position.

Reflector 21 may be formed from any suitable material such as polished aluminum or the like and grommit 22 should preferably be of rubber or other suitably resilient material.

In operation, switch 19 is moved by thumb or finger action to the "on" position thus lighting bulb 18c. Light from bulb 18c will defuse through the transluscent walls of body 11 thus illuminating stick 10 throughout its length. Also, light from bulb 18c will strike conical reflector 21 (as illustrated by arrows A-A in Fig. 3) being deflected from its polished upper surface 21a and concentrating a band of light upon section 22 of body 11, thus further illuminating stick 10 and making it clearly visible in the dark.

Although a conical reflector has been described in this embodiment it is not intended to limit reflector means 21 to a conical configuration, either flat or curved reflectors suitably angled being anticipated, contingent upon any desir d light r flection.

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The general design of the individual parts of the invention as explained above may be varied according to requirements in regards to manufacture and production thereof, while still remaining within the spirit and principle of the invention, without prejudicing the novelty thereof.

THE EMBODIMENTS OF THIS INVENTION IN WHICH AN EXCLUSIVE  
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. An illuminated walking stick including an elongated, hollow body member of translucent material, said body member having longitudinal ribbing formed therein; incandescent light means for illuminating entire length of said body member; intermittent on and off selective switching means for actuating said illuminating means; reflector means within said body member; and handle means, a light deflector means at base of said body.
2. An illuminated walking stick as defined in claim 1 in which said illuminating means comprise a housing for at least one dry cell battery and an electric bulb.
3. An illuminated walking stick as defined in claim 1 in which said selective switching means is of the push-on contact type, having a positive "on" position, immediately identifiable by touch said switching means located adjacent to thumb position on the handle and directly over the incandescent light means.
4. An illuminated walking stick as defined in claim 1 in which said deflector means comprise a polished conical deflector retained within the lower end of said body member by means of a threadably attached grommit.
5. An illuminating walking stick as defined in claim 1 in which said handle means consists of an outwardly extending member threadably attached to the upper end of said body member.

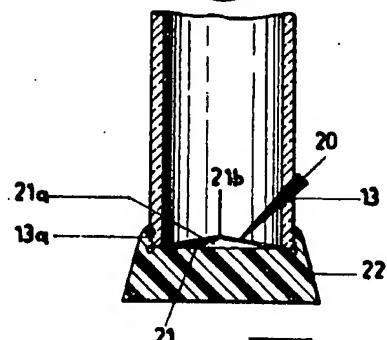
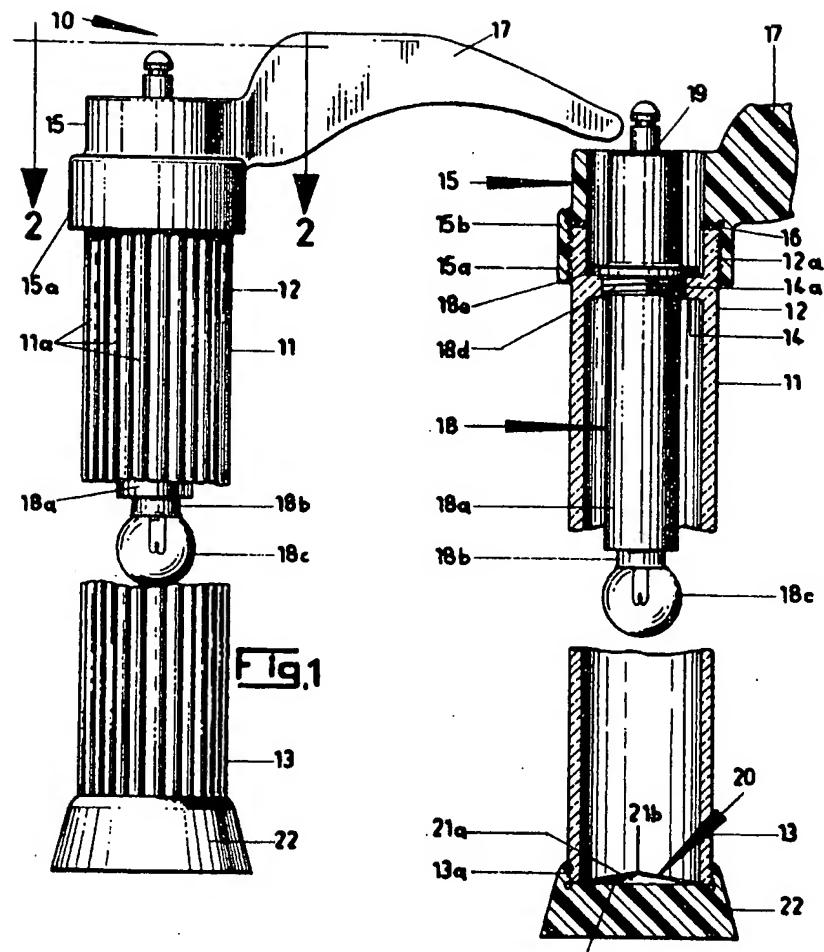


Fig. 2

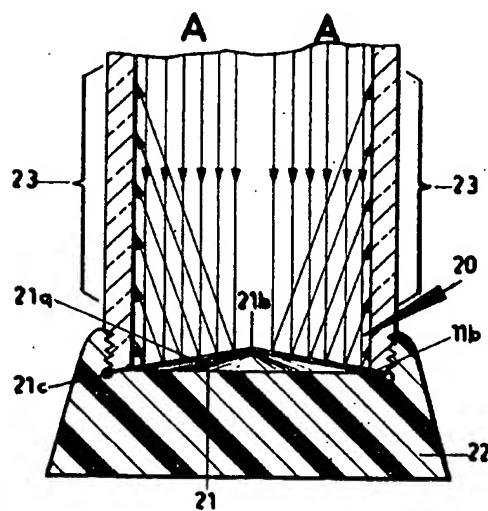


Fig. 3.

*Fürniß Zinnweat*